Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEROME SWARTZ, HOWARD M. SHEPARD,
ERIC F. BARKAN, MARK J. KRICHEVER,
BORIS METLITSKY, EDWARD BARKAN,
and ALEXANDER M. ADELSON

Appeal No. 1998-2467
Application No. 08/353,682

ON BRIEF

Before BARRETT, JERRY SMITH, and LEVY, Administrative Patent Judges.

LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection[1] of claims 41-43, 45-46, 48-51, and 53, which are all of the claims pending in this application.

[1] An amendment filed subsequent to the final rejection (Paper No. 21, filed January 24, 1997) has been entered by the examiner (Paper No. 22, mailed August 5, 1997).

BACKGROUND

The appellants' invention relates to a detachable battery pack for electro-optical scanners. An understanding of the invention can be derived from a reading of exemplary claim 41, which is reproduced as follows:

41. In a system for electro-optically reading indicia having parts of different light reflectivity, a scanning head comprising:

a) a hand-held, generally gun-shaped housing having a hollow handle sized to fit in a hand of a user, said handle extending away from the housing along a handle axis to a handle end and having a predetermined cross-sectional dimension, said housing being movable relative to an indicium within a range of working distances;

b) a DC voltage-powered, solid-state light source mounted in the housing, for directing a light beam away from the housing toward the indicium for reflection therefrom;

c) a sensor for detecting light of variable intensity reflected off the indicium over a field of view, and for generating a signal indicative of the indicium;

d) means for automatically scanning at least one of said light beam and said field of view;

e) decode control means for decoding the signal, and for controlling the automatic scanning, said decode control means being mounted on a printed circuit board insertable and accessible through the handle end for mounting in the handle;

f) an electrical connector;

g) one of the printed circuit board and the electrical connector having electrically conducting pins extending along

the handle axis, and the other of the printed circuit board and the electrical connector having electrically conducting sockets extending along the handle axis;

h) a battery pack for supplying DC voltage to the light source, the sensor, the scanning means and the decode control means through the electrical connector and the printed circuit board; and

I) a mounting assembly for securing the battery pack and the electrical connector to the handle, said assembly including a casing on which the electrical connector is mounted, said electrical connector and said casing being respectively electrically connected by receiving the pins in the sockets and mounted by movement solely in one direction along the handle axis on the handle to close the handle end, said electrical connector and said casing being respectively electrically disconnected by removing the pins from the sockets and demounted by movement solely along the handle axis in a direction opposite to said one direction to open the handle end, said casing having an insert portion extending only along the handle axis and insertable through the open handle and within the handle along the handle axis and a uniform cross-sectional dimension the same as said predetermined cross-sectional dimension.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Riley, Jr.	(Riley)	4,309,067	Jan. 5, 1982
Eastman et al.	(Eastman)	4,603,262	Jul. 29, 1986 (filed Aug. 22, 1983)
Shepard et al.	(Shepard)	4,460,120	Jul. 17, 1984
Swartz et al.	(Swartz)	4,496,831	Jan. 29, 1985

Claims 41-43, 45-46, 48-51, and 53 stand rejected under 35 U.S.C. § 103 as being unpatentable over Swartz in view of Shepard, Eastman, and Riley.

Rather than reiterate the conflicting viewpoints advanced by the examiner and appellants regarding the above-noted rejections, we make reference to the final rejection (Paper No. 20, mailed April 28, 1997) and the examiner's answer (Paper No. 28, mailed March 3, 1998) for the examiner's complete reasoning in support of the rejections, and to appellants' brief (Paper No. 27, filed January 23, 1998) for appellants' arguments thereagainst. Only those arguments actually made by appellants have been considered in this decision. Arguments which appellants could have made but chose not to make in the brief have not been considered. See 37 CFR 1.192(a).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into

consideration, in reaching our decision, the appellants' arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the final rejection and examiner's answer.

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 41-43, 45-46, 48-51, and 53. Accordingly, we reverse, essentially for the reasons set forth by appellants.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467
(1966), and to provide a reason why one having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the

claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hosp. Sys., Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole. See id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

The examiner's position (final rejection, pages 2-5) is that Swartz does not disclose that the DC power source is a battery pack. To overcome this deficiency of Swartz, the examiner turns to Shepard for a teaching of a battery pack in the handle of a scanner. In addition, the examiner states that Swartz and Shepard do not disclose that the circuit board is in the handle of the scanner. To overcome these deficiencies in Swartz and Shepard, the examiner turns to Eastman for a teaching of a circuit board in the handle of a scanner. The examiner further takes the position that Swartz, Shepard, and Eastman do not disclose that the handle has a predetermined cross sectional dimension or that the handle is removed solely along the axis of the handle. To overcome these deficiencies of Swartz, Shepard, and Eastman, the examiner turns to Riley for a teaching of making the handle of a uniform shape. The examiner notes that Riley does not disclose that the handle is removable solely along the axis of the handle, and takes the position that latching mechanisms that allow for "solely axial removal of portions of an apparatus are old and well known in the art" (final rejection, page 5). According to the examiner (id.), it would have been

obvious to use an axial latching mechanism on the handle of Riley, "as an alternate design choice." The examiner additionally takes the position that pin connectors are old and well known, and that it therefore would have been obvious to have connected the circuit board to the rest of the electronic apparatus by means of pin connectors (answer, page 4).

Appellants assert (brief, pages 7-9) that none of the references disclose an electro-mechanical connection of a battery pack by movement solely along the handle axis. Appellants further assert that none of the references disclose opening or closing the of an end of a handle by movement of the battery pack. Appellants additionally assert that none of the references disclose electrically conducting pins and sockets for making an electro-mechanical connection between a battery pack and the housing for supplying electrical power to the various components therein. Moreover, appellants assert that none of the references recite that the handle end extending away from the housing is open able for accessibility. Appellants go on to assert that not only do the claims recite that the battery pack casing has an insert

portion that extends only along the handle axis, but also recite that the insert portion is insertable through the handle end within the handle in the direction of the handle axis and that this limitation is not suggested by the prior art.

From our review of the record, we find that in Swartz, handle 12 is connected to body 14 by detachable connectors 16 and 18. Power supply 50, which is located within handle 12, has input voltage terminal 52, output terminal 54, and control terminal 56. Shepard discloses placement of a battery 114 in the handle 12 of the scanner. Eastman discloses placement of a circuit board 40, containing decoding electronics (col. 3, lines 51-52) in handle 16 of the scanner. In Riley, battery pack 18 is connected to handle stub 16 by a latching system. To connect the battery pack 18 and the electric drill 10, the battery pack is initially moved in the direction of the handle axis such that the rectangle defined by wall 50 is inserted in to the opening defined by rib 22 of handle stub 16. In this position, the top of projections 66 and 70 reach the base surface 20 of handle stub 16. The battery pack 18 is then moved in a transverse direction, shown by arrow 86 in Figure 7

to interconnect the battery pack and the handle stub 18. Thus, the connection between the battery pack and the handle stub of Riley does not occur by movement only in the direction of the axis of the handle. In addition, we find that in Riley, the handle end which connects to the battery casing is closed (base surface 20) and the inside of the handle is not accessible. We agree with the examiner that it would have been obvious to have provided the scanner handle with both a battery as taught by Shepard, and a circuit board having decoder electronics as taught by Eastman. In addition, we agree with the examiner that both electrical pin and socket connections and latching mechanisms that move only in an axial direction are,

per se, old and well known. However, it is not enough that individual elements of an invention are old and well known in the art. There must be some teaching or suggestion in the prior art that would have led an artisan to arrive at the claimed invention. It is impermissible to simply engage in a hindsight reconstruction of the claimed invention, using appellants' structure as a template and selecting elements from the prior art to fill the gaps. We find no suggestion in

the prior art to provide the circuit board with a pin or socket connector to connect the circuit board to the electrical connector at the handle end formed away from the body of the scanner; connect the casing, which mounts the electrical connector, to the housing through the use of a mounting assembly that moves solely in an axial direction, and to provide the handle end with an opening to make the circuit board accessible through the handle end where the handle end connects to the battery pack. In our view, the only suggestion for modifying the prior art in the manner proposed by the examiner to meet the above-noted limitations stems from hindsight knowledge derived from appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). We agree with the examiner that a single connection would be created, but we find no suggestion for the proposed modifications of the prior art, and no persuasive argument or convincing line of reasoning has been advanced by the examiner. It follows that

we cannot sustain the examiner's rejection of claims 41-43, 45-46, 48-51, and 53. Accordingly, the rejection of claims 41-43, 45-46, 48-51, and 53 under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 41-43, 45-46, 48-51, and 53 under 35 U.S.C. § 103 is reversed.

REVERSED

LEE E. BARRETT Administrative Patent Judge	)
JERRY SMITH Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
STUART S. LEVY	)

Administrative Patent Judge)

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